

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
NATIONAL RISK MANAGEMENT RESEARCH LABORATORY
CINCINNATI, OH 45268

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OFFICE OF
RESEARCH AND DEVELOPMENTMEMORANDUM

SUBJECT: Comments on the Halby Treatability Study Summary Report

FROM: Ed Barth, Environmental Engineer
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Ron Turner, Chemical Engineer
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TO: Joan Mattox, Physical Scientist
Engineering Technical Support Center

As requested the following comments reflect a review of the lab study only and not how the results would be applied to a future field test or the physical mixing and contaminated aspects.

1. It is not apparent that sample holding times did not interfere with results. For example, Table 1 shows 85% reduction with no oxidant. In Table 5, CS₂ was not measured with an oxidant.
2. Temperature increase and sulfate increase may be a concern with low flash point material.
3. COD increased? Phase IV will allow identification of byproducts.
4. Arsenic will be oxidized to +5 and probably will mobilize. What plans to stabilized arsenic?
5. What is the equivalent SW-846 method for CS₂?
6. How was it determined the 2 times stoichiometric moles of oxidant could be required (extrapolate)?
7. Table 1 shows 85% CS₂ reduction with NaOH only. Table 5 shows no CS₂ reduction data for the untreated Halby soil. Could the apparent high "removal" of CS₂ invalidate the reagent test data?

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